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(54) **LINEAR PROBE CARRIER**

(76) Inventors: **Shiping Chen**, Rockville, MD (US); **Yuling Luo**, Castro Valley, CA (US)

Correspondence Address:
Charles D. Holland
Morrison & Foerster LLP
755 Page Mill Road
Palo Alto, CA 94304-0792 (US)

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(57) **ABSTRACT**

The invention relates to a probe carrier in which a flexible substrate carries a one-dimensional configuration of probes wherein each different type of probe is attached to its own discrete portion of the substrate. The invention also relates to a probe carrier in which a flexible substrate such as a tape or fiber carries a two-dimensional configuration of probes. Furthermore, systems for fabricating and packaging flexible probe carrier threads are presented. Flexible probe carrier threads are packaged in forms of pins, rods, coils and spools to increase efficiency of hybridization and generate compact formats for transportation and use of probe carriers. Novel methods for hybridization of packaged probe carriers are disclosed. Methods for reading results of hybridization to packaged probe carriers are also disclosed.